

REMARKS

Applicants and their attorney wish to express their gratitude to both Examiner Kim and to Examiner Nguyen for taking time out of their busy schedule to meet with Applicants' attorney. During the interview, the Office Action was discussed in relation to Japanese Patent Application No. H8-325645 (hereinafter "JP '645"). An English abstract of JP '645 was provided to the Examiner by Applicants in an Information Disclosure Statement. During the interview, Examiner Kim produced a rough, machine translation of JP '645, which was being relied upon in rejecting the claims.

Since machine translations of technical documents, such as patent applications, are notoriously inaccurate, Applicants, at their expense, have obtained a full English translation of JP '645, which is attached to this Amendment as Appendix A. As discussed in greater detail below and after a complete review of the enclosed translation, Examiners Kim and Nguyen should be in a better position to understand the patentable differences between the currently pending claims as amended and JP '645.

During the personal interview, the objection to the drawings under 37 CFR 1.83(a) was also discussed. Specifically, in the Office Action, the drawings were objected to for failing to show a braking device, a stepper motor, or a servo motor as recited in claims 50 and 51. However, as pointed out during the interview, Figures 1, 2A, 2B and 2C show drive devices 48 and 50. As stated in the specification on page 13, in one embodiment, the drive devices 48 and 50 may comprise brake devices. As also stated on page 13, in another embodiment, the drive devices may also comprise stepper motors or servo motors. Thus, in view of the drawings in conjunction with the written description, Applicants submit that no further drawings are needed as was agreed during the interview.

In the Office Action, claims 45-49, 52-53 and 58-59 were rejected under 35 U.S.C. § 103 as allegedly being obvious over JP '645 in view of U.S. Patent No. 6,562,167 to Coenen et al. In addition, claims 50-51, 54 and 56-57 were rejected under 35 U.S.C. § 103 as allegedly being obvious over JP '645 in view of U.S. Patent No.

3,822,838 to Butler, Jr. et al. As now amended, however, Applicants submit that the presently pending claims patentably define over the above-cited references.

Currently, claims 45-78 remain pending in the present application including independent claims 45 and 62. All of the claims are directed to a process for forming an absorbent article, such as a diaper, a feminine care article, an incontinence article or a child's training pants. During the process, a first material is unwound into a festoon including a plurality of rotatable guide rolls through which the material is threaded. As stated in the claims, when the rate at which the roll of the first material is unwound decreases at the unwind device, certain of the guide rolls in the festoon are actively decelerated. Further, the guide rolls are decelerated independent of each other.

As the first material is unwound, the material is fed into a process for forming absorbent articles. The absorbent article, for example, may comprise a liner material, an outer cover material and an absorbent material positioned in between the liner material and the outer cover. The first material, in many embodiments, comprises a lightweight material used in construction of the absorbent article. For instance, in one embodiment, the first material may comprise the liner material or the outer cover material.

As stated in the present application and as explained during the interview, in the past, the tension of the first material was used to decelerate the guide rolls during interruptions in the unwinding of the material. According to the present invention, however, the guide rolls are actively decelerated which, not only reduces tension swings of the material in the festoon but also allows for faster processing speeds without having to increase festoon storage capacity.

As stated on page 14, in many applications, the guide rolls in the festoon comprise idler rolls and thus are not driven during steady-state operation, i.e., prior to decreases in the rate at which the material is unwound. Thus, claim 45 has been amended to state that, during steady state, at least certain of the guide rolls are not actively driven.

Independent claim 62, on the other hand, requires that the guide rolls be decelerated based upon the amount of inertia contained in the guide rolls so as to minimize tension swings. As stated on page 15 of the present application, in the past, tension build-up in the material in the festoon was used to overcome the inertia of the guide rolls and slow them down. Thus, in the past, the maximum deceleration rate was a function of how much tension the material could tolerate. As defined in claim 62, however, the guide roll is decelerated based upon the amount of inertia contained in the guide roll in order to minimize tension swings in the material and, as described above, to allow for faster operating speed, such as speeds greater than 100 feet per minute.

In stark contrast to independent claim 45, JP '645 either alone or in combination with Coenen et al. fails to disclose or suggest a process for producing absorbent articles in which at least certain guide rolls contained in a festoon are not actively driven during steady state but, are actively decelerated in the festoon when the rate at which the roll of material is unwound decreases.

In contrast, JP '645 is directed to a tension controlling apparatus for use in a steel production line. As stated on page 9 of the translation, the apparatus disclosed in JP '645 is designed to control the tension of a relatively heavy material, such as a strip of steel, as the steel strip is fed through a looper. As shown in the drawings, the apparatus includes a looper L that receives a strip of steel 1. In order to convey the heavy steel strip through the looper, the helper rolls 2 are each driven by motors 12. Further, also due to the weight of the steel strip, the carriage 3 is controlled by a motor 5.

As made clear in the enclosed translation, the motors 12 located on each of the helper rolls 2 are necessary in order to convey the steel strip through the process line.

In comparison, claim 45 as now amended requires that during steady state of the unwinding process, at least certain of the guide rolls are not actively driven such that the guide rolls comprise idler rolls. In stark contrast, none of the helper rolls contained within the looper of the apparatus disclosed in JP '645 comprise idler rolls

that are not actively driven during steady state. Instead, as made clear in the translation, although the speed of the helper rolls is varied by speed controllers, the motors of the helper rolls are continuously driving the rolls in order to convey the steel strip through the looper. In claim 45, on the other hand, which is directed to a process for forming an absorbent article, the guide rolls are only actively decelerated when the rate at which the roll of the first material is unwound decreases at the unwind device. Otherwise, during steady state of the process, certain of the guide rolls are not actively driven and thus the guide rolls serve as idler rolls.

Further, it would not have been obvious in view of Coenen et al. to somehow modify the apparatus disclosed in JP '645 so that the helper rolls serve as idler rolls during steady state. There is simply no motivation, suggestion or incentive to somehow modify JP '645 even in view of Coenen et al. Any such modification would impermissibly rely on hindsight analysis, would contradict the teachings of JP '645, and most likely render the apparatus inoperable to convey steel strips. As such, Applicants submit that independent claim 45 patentably defines over JP '645 either alone or in conjunction with Coenen et al.

Independent claim 62 is also believed to patentably define over both of the above references. Claim 62 is also directed to a process for forming an absorbent article. Claim 62 requires that the guide rolls contained in the festoon be decelerated based upon an amount of inertia contained in the respective guide roll so as to minimize tension swings in the material. As described in the present specification, the materials conveyed through the festoon in order to produce the absorbent article are very lightweight. For instance, the materials can have a basis weight of less than 25 gsm. The lightweight material is also conveyed at a relatively high speed, such as at least 100 feet per minute. As described on page 15 of the present application, the present invention as defined in claim 62 is directed to overcoming the inertia of the guide rolls in order to minimize tension swings during partial interruptions, such as during splicing sequences. As also described in the application, by decelerating the guide rolls based

upon the inertia of the guide rolls, festoon capacity can be decreased while line processing speeds can be increased.

JP '645, however, teaches and discloses processes that are exactly the opposite of the process defined in claim 62. For instance, in JP '645, the speed of the helper rolls are adjusted not on the basis of the inertia of the helper rolls but instead based on the inertia of the steel strip that is being conveyed through the system. For instance, JP '645 states on page 3 of the translation that:

The moment of inertia of the strip 1 which is stored in the looper L is calculated by means of a compensation computer 16 from data such as the width, thickness and density of the strip 1 which is being taken in and the height of the carriage 3 of the looper L, the gain of a speed controller 13 as adjusted by a computing compensator 16 in accordance with the moment of inertia and the response characteristics of the speed controller are set so as to follow up in accordance with the fluctuations of the strip 1 and the tension of the strip 1 is held constant.

Thus, in JP '645 the inertia of the helper rolls is apparently insignificant in comparison to the inertia of the steel strip being conveyed through the process. Thus, JP '645 includes a complicated control system that is used to calculate the inertia of the steel strip so as to compensate for fluctuations in the moment of inertia of the strip due to changes in the width, thickness and density of the strip. In fact, fluctuations in the inertia of the strip are compensated for continuously during the process so that the response of the position control of the carriage can be held constant in accordance with the changes of the moment of inertia. Thus, in view of the above differences, Applicants submit that claim 62 patentably defines over JP '645 either alone or in combination with Coenen et al.

As also described above, the claims as currently pending are directed to a process for forming absorbent articles. In the Office Action, JP '645 was combined with Coenen et al. in rejecting various claims. Applicants submit, however, that it also would not have been obvious to somehow combine the steel production line as disclosed in JP '645 with the method for making garments as disclosed in Coenen et al. For example,

one skilled in the art of forming absorbent articles, such as diapers, feminine hygiene products, adult incontinence products and the like, would not look to systems for producing steel strips as disclosed in JP '645. Nowhere does either reference provide any suggestion, motivation or incentive for the combination. In fact, the Examiner has provided no guidance as to how the apparatus disclosed in JP '645 would somehow be incorporated into the high speed garment assembly line as shown in Coenen et al.

In addition to claims 45 and 62, Applicants submit that various dependent claims contain features and aspects that are not disclosed or suggested by the cited prior art. For instance, none of the cited prior art either alone or in combination suggest the features and elements particularly required in claims 48, 50, 51, 56-61, 65, 67, 68 and 73-78.

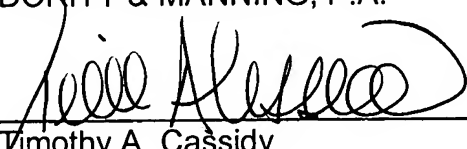
In summary, it is believed that the currently pending claims patentably define over the prior art cited in the Office Action and are in complete condition for allowance. Should any issues or questions remain after consideration of this Response, however, then Examiner Kim is invited and encouraged to telephone the undersigned at his convenience.

Respectfully submitted,

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